

REMARKSReply to Advisory Action

The Examiner wrote in part in the Advisory Action dated June 1, 2004, that the "recitation in claims 1 and 6 of a member attached to the engine that deforms after the portion deforming and supporting the engine may not define over Volmer (US Patent 5,154,253), who teaches member 5 that deforms after the engine and transmission have moved rearward."

Applicants submit that Canadian '693 in view of Vollmer '253 fall short of disclosing all the limitations of Claims 1 and 6.

Canadian '693 discloses the following:

The cross brace 28 is disposed adjacent to and just rearwardly of the engine 11 and, accordingly, in the event of a front end collision or other impact which is sufficiently serious to dislodge the engine 11 from the engine support members 12 the engine engages the cross brace 28. Continued movement of the engine toward the right as viewed in Figs. 1 and 2, produces a corresponding movement of the carriage 25 to the rear of the automobile thus carrying the seat 22 to the rear and moving the driver 21 out of the path of the rearwardly moving engine 11 or the steering post 20. (Canadian '693, col.2, lines 53-65) (emphasis added).

Thus, Canadian '693 discloses that the engine transmits collision load to engage the cross brace and produce a corresponding movement of the carriage holding the seat. Engine support members 12 may deform at a collision but do not transmit the collision load to thereby move the seat, as shown in Fig. 2.

Volmer '253 discloses the following:

[T]he end of the drive unit [1] facing the passenger compartment and the extension in the form of the tubular support member 5 extend into the axial longitudinal runner 2. (Volmer '253, col.3, ll.43-46).

The free end 11 of the tubular support member 5 will contact the bracket 8 and deform in a crimping manner as it absorbs collision energy. (Volmer '253, col.4, ll.6-9) (underline added).

For purposes of adjustment and tensioning of the cables 15 and 18, the cable grab or hook 14 is mounted so that it may be displaced along the tubular support member 5 and can be locked in position, for example by means of bolts, 22 in a serration 24 on the tubular support member 5. (Volmer '253, col.4, ll.39-44).

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In summary, . . . the tubular support member 5 performs the threefold function of providing a means of longitudinally adjusting cable grab 14, a bearing element for support of the drive unit 1 and an energy absorbing collision element. (Volmer '253, col.4, ll.53-58).

Thus, Volmer '253 discloses that member 5 deforms after the engine and transmission move rearward to thereby absorb energy from a collision. Collision load is not further transmitted by member 5 nor does Volmer '253 disclose or suggest a member for transmitting the collision load.

Accordingly, Canadian '693 in view of Volmer '253 do not disclose or suggest "a vehicle body including a portion to be deformed on receiving a collision load and a separate member for transmitting said collision load, said portion being formed at least in front of a vehicle room wherein the separate member is deformable after said portion is deformed to thereby allow for control over deceleration of said vehicle room on receiving said collision load" and "an engine made of a rigid body supported on said vehicle body, wherein said engine is attached to said separate member so as to be movable together backward relative to said vehicle body on receiving said collision load," as recited in Claim 1.

Further in contrast, Claim 6 recites "a vehicle body including an engine supported on a deformable portion of said vehicle body, wherein said engine is attached to a member for transmitting a collision load wherein said member is deformable after said portion is deformed to thereby allow said engine to be capable of backward movement together toward an occupant compartment in an event of a front-end collision."

Therefore, because Canadian '693 and Vollmer '253, alone or in combination, do not disclose or suggest all the limitations of Claims 1 and 6, Claims 1 and 6 are patentable over Canadian '693 in view of Vollmer '253.

Claims 4-5 are dependent upon Claim 1, and Claims 7-8 and 11-12 are dependent upon Claim 6, and contain additional limitations that further distinguish them from the cited references. Therefore, Claims 4-5, 7-8, and 11-12 are allowable for at least the same reasons provided above with respect to Claims 1 and 6.

Applicants also submit that there is no motivation to combine Canadian '693 and Vollmer '253.

Canadian '693 discloses the following:

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The invention relates generally to a safety seat construction . . . which protects the driver and passengers against injury resulting from dislodging the vehicle engine and its steering post from their mountings in the event of an automobile accident.

It is an object of the present invention . . . to provide a safety seat for automobiles in which the passenger is protected from injuries caused by the rearward movement of the automobile engine or the steering post in the event of an accident.

A further object of the invention is to provide an automobile seat which is adapted to be moved rearwardly of the automobile in the event of a front end collision or similar impact in order to move the passengers or driver out of the path of movement of the automobile engine and the steering post in the event that the latter are dislodged from their mountings.

The foregoing and other objects are realized . . . by the provision of a seat support for the front seat of an automobile, which support is mounted for movement rearwardly of the vehicle in the event of an accident. (Canadian '693, col.1, ll.1-42) (emphasis added).

Thus, Canadian '693 discloses a carriage structure 25 that moves a front seat rearwardly in order to protect against a rearward moving engine and steering post. Canadian '693 does not disclose or suggest the need for using cables to transmit power because direct transmission of power from engine 11 to carriage 25 is disclosed for moving the front seat backward. Furthermore, Canadian '693 does not disclose or suggest the use of cables for adjusting safety restraining belts as such a function would not protect against a rearward moving engine and steering post.

Applicants further submit that Vollmer '253 discloses the following:

A cable 15 is fastened on the steering wheel 16 and extends by way of the deflection element 13 and the cable grab 14 to the deflection element 12 and is anchored the [sic] vehicle body. In the event of a severe frontal collision in which the drive unit 1 is displaced in the direction of the arrow 10 relative to the body, one end of the cable 15 remains secured in the areas of the deflection element 12, the cable grab 14 is displaced in the direction of the passenger compartment, and the deflection element 13 also remains secured on the body. Consequently, the cable 15 on the steering wheel 16 is drawn in the direction of the arrow 17 and accordingly the steering wheel 16 is displaced laterally from the impact area of the head of the driver of the vehicle.

Another cable 18 is connected to conventional safety restraining belts (20). (Volmer '253, col.4, ll.14-29).

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Thus, Vollmer '253 discloses that the steering column is removed as a potential harm to the driver, and consequently, Vollmer '253 does not disclose or suggest using cables to move the front seats backward, any structure for doing so (e.g., a slide mechanism, rails), or any need to do so.

Accordingly, there is no motivation to combine Canadian '693 with Vollmer '253 because Canadian '693 does not disclose or suggest the need or desirability for using cables as taught in Vollmer, and Vollmer does not disclose or suggest the need to translate the front seat backwards for protection against a rearward moving steering column or engine.

Applicants note that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious, unless the prior art also suggests the desirability of the combination. In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000); MPEP § 2143.01. Hindsight should not be used to combine prior art elements to establish obviousness.

Applicants further submit that neither Canadian '693 nor Vollmer '293, alone or in combination, disclose or suggest "a power transmission mechanism transmitting the backward movement of said structure to said seat, to thereby move said seat backward, wherein the power transmission mechanism is a cable," as recited in Claim 1.

Similar to Claim 1, Claim 6 recites "a cable disposed between the rigid body and the occupant compartment, and affixed to the seat, so as to transmit the backward motion of the rigid body to the seat to thereby move the seat backward in the event of a front-end collision."

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CONCLUSION

For the above reasons, Applicants believe pending Claims 1, 4-8, and 11-12 are in condition for allowance and allowance of the Application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicants' Attorney at (949) 752-7040.

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